

## **Particulate Matter Health Effects Research: Interdisciplinary Approaches, Program Accomplishments, and Future Directions**

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Safeguarding public health and the environment from the harmful effects of air pollution is the primary objective of the Agency's Air Program. Achieving this goal requires the enactment of sound, scientifically defensible environmental policies and standards by OAR policy makers supported by the integrated scientific, technical, and advisory contributions of ORD Laboratories and Centers.

ORD has developed a broad and integrated approach to address the health concerns associated with airborne PM. The approach is aligned with the ten priority research issues noted by the National Research Council in 1998 and recently refined in a fourth and final report to be released in 2004. These priority research needs form the conceptual foundation of a strong health research program encompassing epidemiology, field and panel studies, and clinical and animal toxicology, as well as basic in vitro mechanistic investigations. This poster highlights the Agency's interdisciplinary nature of research on the effects of PM on human health. In coordination with other EPA Laboratories and Centers, the collective program is the most advanced and coordinated effort ever undertaken to elucidate the health effects of air pollution (notably PM) and reduce uncertainties of exposure and source attribution to provide a logical, scientific framework for appropriate regulation.

This poster provides an overview of the PM Health Research Program showing coordination across disciplines and among its various participating Laboratories and organizational groups. Highlights of select research accomplishments and included and future research directions presented.

PM is regarded as a major public health issue, for thousands of deaths are thought to be attributable to daily fluctuations of anthropogenically derived particles. This program is designed to decrease the uncertainties associated with PM risk assessments and determine the most important sources with regard to adverse health outcomes. The program presents an integrated approach to understanding PM health effects and serves as a model for problem-solving research approaches to major environmental issues.